

**Abstract of the Disclosure**

A third generation general partnership program radio communication system or a universal mobile telephone system employs a wide band code division multiple access system. The codes in various incoming signals from different sources are identified by

- 5 cross correlation using a code matched filter. A multiplexer, samples the signals from each of the P sources at P times the chip rate of the codes in the incoming signals. The multiplexer time multiplexes the received signals and feeds them to single delay line consisting of N stages each having P elements. Each stage will thus store one sample from each of the P sources. A selected element in each stage has an output which feeds a
- 10 corresponding input of a code matched filter dot-product adder chain to enable a cross-correlation to be established for each incoming signal in turn.